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PTO/SB/21 (09-04)

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Total Number of Pages in This Submission

21

Application Number

09/708,397

Filing Date

November 8, 2000

First Named Inventor

Roger K. Abrams

Art Unit

2135

Examiner Name

Truong, Thanhnga

Attorney Docket Number

RPS9-2000-0077US1

ENCLOSURES (Check all that apply)

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Supplemental Appeal Brief

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Winstead Sechrest & Mirick P.C.		
Signature			
Printed name	Robert A. Voigt, Jr.		
Date	January 12, 2005	Reg. No.	47,159

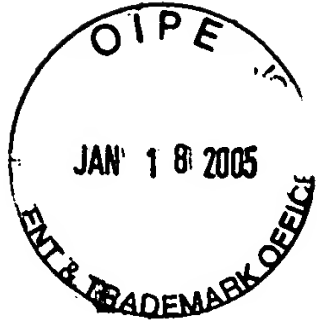
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- 1 -

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	:	Before the Examiner:
Roger Kenneth Abrams	:	Truong, Thanhnga
Serial No.: 09/708,397	:	Group Art Unit: 2135
Filed: November 8, 2000	:	
Title: SYSTEM AND METHOD FOR	:	IBM Corporation
PREVENTION OF BUFFER OVERFLOW :	:	P.O. Box 12915
INTRUSIONS :	:	Dept. 9CCA, Bldg. 002
	:	Research Triangle Park, NC 27709

REQUEST FOR REINSTATEMENT OF APPEAL

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Office Action (Paper No. 10) having a mailing date of December 2, 2004, reopening prosecution of the above-referenced Application, Applicant respectfully requests reinstatement of the Appeal based on the Appeal Brief filed on August 20, 2004 and the Notice of Appeal filed on July 22, 2004.

CERTIFICATION UNDER 37 C.F.R. §1.8

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Signature

Serena Beller

(Printed name of person certifying)

A supplemental appeal brief is filed herewith.

FEE DEFICIENCY

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum, six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to charge the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, 1065 O.G. 31-33.

- ☒ If any additional extension and/or fee is required, this is a request therefor and to charge Account No. 50-0563 (RPS9-2000-0077US1).

AND/OR

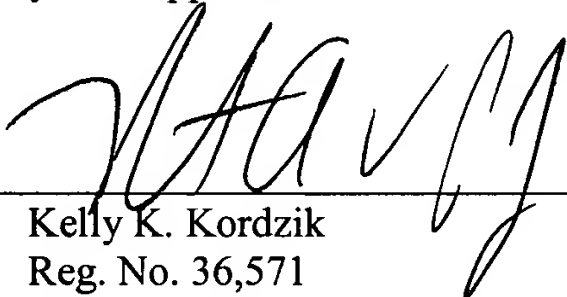
- ☒ If any additional fee for claims is required, charge Account No. 50-0563 (RPS9-2000-0077US1).

Respectfully submitted,

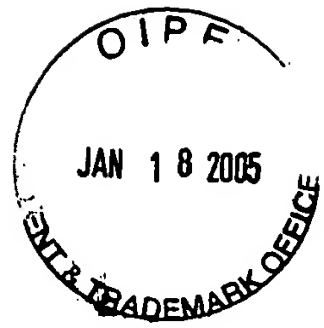
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- 1 -

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:	:	Before the Examiner:
Roger Kenneth Abrams	:	Truong, Thanhnga
Serial No.: 09/708,397	:	Group Art Unit: 2135
Filed: November 8, 2000	:	
Title: SYSTEM AND METHOD FOR	:	IBM Corporation
PREVENTION OF BUFFER OVERFLOW :	:	P.O. Box 12915
INTRUSIONS	:	Dept. 9CCA, Bldg. 002
	:	Research Triangle Park, NC 27709

SUPPLEMENTAL APPEAL BRIEF

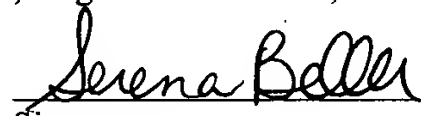
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Dear Sir:

This supplemental brief is being submitted pursuant to 37 C.F.R. §41.37.

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Signature

Serena Beller
(Printed name of person certifying)

I. INCORPORATION BY REFERENCE

Appellant hereby incorporates herein by reference Sections I-VI and VIII-IX of Appellant's Brief mailed on August 20, 2004.

II. NEW GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-2, 9-12, 15-19 and 24-25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yates, Jr. et al. (U.S. Patent No. 6,397,379) (hereinafter "Yates"). Claims 3-8, 13-14 and 20-23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yates in view of Wang (U.S. Patent No. 6,477,612).

III. ADDITIONAL ARGUMENTS

A. Claims 1-2, 9-12, 15-19 and 24-25 are improperly rejected under 35 U.S.C. §103(a) as being unpatentable over Yates.

The Examiner has rejected claims 1-2, 9-12, 15-19 and 24-25 under 35 U.S.C. §103(a) as being unpatentable over Yates. Paper No. 10, page 2. Appellant respectfully traverses these rejections for at least the reasons stated below.

1. The Examiner has not provided any objective evidence for modifying Yates.

A *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions. M.P.E.P. §2142. The showings must be clear and particular and supported by objective evidence. *In re Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433-34 (Fed. Cir. 2002); *In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000); *In re Dembiczak*, 50 U.S.P.Q.2d 1614,

1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id.*

The Examiner's motivation for modifying Yates to have a memory manager configured to determine whether the program is susceptible to buffer overflow attacks, and, if so, set the execution flag for program stack pages of RAM to deny CPU execution of data on the program stack pages of RAM, as recited in claim 1 and similarly in claims 9 and 18, is "since the switch is responsive to a first flag value stored in each table entry, and controls the instruction processor to interpret instructions under, alternately, the first or second instruction set as directed by the first flag value of the table entry corresponding to an instruction's memory page (column 36, line 41)." Paper No. 10, page 5. The Examiner's motivation is insufficient to support a *prima facie* case of obviousness for at least the reasons stated below.

The Examiner's motivation is not a motivation as to why one of ordinary skill in the art would modify Yates to include the above-cited claim limitation. The Examiner has not provided any evidence as to why Yates would be modified to determine whether the program is susceptible to buffer overflow attacks. There is no language in Yates that teaches buffer overflow attacks. Further, the Examiner has not explained how the teaching of a switch being responsive to a first flag value stored in each table entry and controls the instruction processor to interpret instructions under in Yates is support for modifying Yates to determine whether the program is susceptible to buffer overflow attacks. Neither has the Examiner explained how the teaching of a second instruction set as directed by the first flag value of the table entry corresponding to an instruction's memory page in Yates is support for modifying Yates to determine whether the program is susceptible to buffer overflow attacks. The cited passage in Yates is not related to determining whether a program is susceptible to buffer overflow attacks. Neither was the cited passage in Yates related to setting an execution flag for program stack pages of RAM to deny CPU execution

of data on the program stack pages of RAM. The Examiner must provide some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Yates to have a memory manager configured to determine whether the program is susceptible to buffer overflow attacks, and, if so, set the execution flag for program stack pages of RAM to deny CPU execution of data on the program stack pages of RAM. M.P.E.P. §2142. The Examiner is merely relying upon his own subjective opinion which is insufficient to support a *prima facie* case of obviousness in rejecting claims 1-25. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

2. Yates does not teach or suggest the following claim limitations.

a. Yates does not teach or suggest all of the limitations of claims 1, 9 and 18.

Appellant respectfully asserts that Yates does not teach or suggest "a program stack stored within at least one page of the RAM" as recited in claim 1 and similarly in claim 9. The Examiner cites column 2, lines 28-51 of Yates as teaching the above-cited claim limitation. Paper No. 10, page 3. Appellant respectfully traverses and asserts that Yates instead teaches that the memory is divided into pages for management by a virtual memory manager. Yates further teaches that the program is coded in instructions of the first and second instruction sets and uses first and second data storage conventions. Yates further teaches that the switch is responsive to a first flag value stored in each table entry, and controls the instruction processor to interpret instructions under, alternately, the first or second instruction set as directed by the first flag value of the table entry corresponding to an instruction's memory page. Yates further teaches that the transition handler is designed to recognize when program execution has transferred from a page of instructions using the first data storage convention to a page of instructions using the second data storage convention, as indicated by second flag values stored in table entries corresponding to the

respective pages, and in response to the recognition, to adjust a data storage configuration of the computer from the first storage convention to the second data storage convention. There is no language in the cited passage in Yates that teaches a program stack stored within a page of memory. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 1 and 9, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Appellant further asserts that Yates does not teach or suggest "wherein the memory manager is configured to determine whether the program is susceptible to buffer overflow attacks, and, if so, set the execution flag for program stack pages of RAM to deny CPU execution of data on the program stack pages of RAM" as recited in claim 1 and similarly in claims 9 and 18. The Examiner cites column 10, lines 31-50; column 55, lines 5-12; column 65, line 63 – column 67, line 60; and column 72, lines 9-19 of Yates as teaching the above-cited claim limitation. Paper No. 10, pages 4-5. Appellant respectfully traverses.

Yates instead teaches that a limit detector is operatively interconnected with the register pointer to detect when a range of registers available for collecting profile information is exhausted and a store unit is operatively interconnected with the limit detector of effect storing the profile information from the general registers to the main memory of the computer when exhaustion is detected. Column 10, lines 31-37. Yates further teaches that an alternative tuning method for TAXi_Control.Profile_Timer_Reload_Constant considers buffer overruns. Column 72, lines 8-9. Yates further teaches that when the range of profile collection registers is full, the profile registers are spilled (536 and 548 of FIG. 5a) to a ring buffer in memory. Column 72, lines 10-12. Yates further teaches that the hot spot detector consumes the profile information from this ring buffer. Column 72, lines 12-13. Yates further teaches that if the profiler overruns the hot spot detector and the ring buffer overflows, then the value in TAXi_Control.Profile_Timer_Reload_Constant is increased, to reduce the frequency at which profiling information is collected.

Column 72, lines 13-17. Yates further teaches that alternatively, on a buffer overrun, the frequency at which the hot spot detector runs can be increased. Column 72, lines 17-19. While Yates teaches reducing the frequency at which profiling information is collected if the ring buffer overflows, there is no language in the cited passages that teaches determining whether a program is susceptible to buffer overflow attacks. Neither is there any language in the cited passages that teaches that if the program is susceptible to buffer overflow attacks then set an execution flag for program stack pages of RAM. Neither is there any language in the cited passages that teaches that if the program is susceptible to buffer overflow attacks then set an execution flag for program stack pages of RAM to deny CPU execution of data on the program stack pages of RAM. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 1, 9 and 18, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Appellant further asserts that Yates does not teach or suggest "a memory manager configured to manage the pages of the RAM and permit CPU execution of data on pages according to the execution flag" as recited in claim 1 and similarly in claims 9 and 18. The Examiner cites column 2, lines 28-51 of Yates as teaching the above-cited claim limitation. Paper No. 10, page 3. Appellant respectfully traverses and asserts that Yates instead teaches that the memory is divided into pages for management by a virtual memory manager. Yates further teaches that the program is coded in instructions of the first and second instruction sets and uses first and second data storage conventions. Yates further teaches that the switch is responsive to a first flag value stored in each table entry, and controls the instruction processor to interpret instructions under, alternately, the first or second instruction set as directed by the first flag value of the table entry corresponding to an instruction's memory page. Yates further teaches that the transition handler is designed to recognize when program execution has transferred from a page of instructions using the first data

storage convention to a page of instructions using the second data storage convention, as indicated by second flag values stored in table entries corresponding to the respective pages, and in response to the recognition, to adjust a data storage configuration of the computer from the first storage convention to the second data storage convention. There is no language in the cited passage in Yates that teaches permitting execution of data on pages according to an execution flag. Instead, Yates teaches adjusting a data storage configuration of the computer from the first storage convention to the second data storage convention in response to second flag values stored in table entries. There is no language in the cited passage of Yates that teaches that adjusting the data storage configurations involves permitting execution of data on pages according to an execution flag. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 1, 9 and 18, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

Appellant further asserts that Yates does not teach or suggest "designating an execution flag for each page of RAM allocated to a stack of the application program" as recited in claim 18. The Examiner cites column 2, lines 28-51 of Yates as teaching the above-cited claim limitation. Paper No. 10, page 3. Appellant respectfully traverses. As stated above, Yates instead teaches that the memory is divided into pages for management by a virtual memory manager. Yates further teaches that the program is coded in instructions of the first and second instruction sets and uses first and second data storage conventions. Yates further teaches that the switch is responsive to a first flag value stored in each table entry, and controls the instruction processor to interpret instructions under, alternately, the first or second instruction set as directed by the first flag value of the table entry corresponding to an instruction's memory page. Yates further teaches that the transition handler is designed to recognize when program execution has transferred from a page of instructions using the first data storage convention to a page of instructions using the second data

storage convention, as indicated by second flag values stored in table entries corresponding to the respective pages, and in response to the recognition, to adjust a data storage configuration of the computer from the first storage convention to the second data storage convention. There is no language in the cited passage that teaches designating an execution flag for each page of RAM allocated to a stack. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claim 18, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

- b. Yates does not teach or suggest all of the limitations of claims 2 and 10.

Appellant further asserts that Yates does not teach or suggest "wherein the memory manager and the CPU are configured to deny CPU execution of data by triggering a hardware interrupt" as recited in claim 2 and similarly in claim 10. The Examiner cites column 73, lines 20-24 of Yates as teaching the above-cited claim limitation. Paper No. 10, page 5. Appellant respectfully traverses and asserts that Yates instead teaches that asynchronous x86 transfers of control from hardware interrupts, page faults, breakpoints, single step or any other x86 exception detected in converter or emulator that must be manifest to the x86 virtual machine. There is no language in the cited passage that teaches denying CPU execution of data. Neither is there any language in the cited passage that teaches denying CPU execution of data by triggering a hardware interrupt. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 2 and 10, since the Examiner is relying upon an incorrect, factual predicate in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

- c. The Examiner has not cited to any passage in Yates as teaching the limitations of claims 11, 12, 15-17, 24 and 25.

The Examiner makes the blanket statement that claims 11, 12, 15-17, 24 and 25 are rejected under the same rationale as the rejection to claim 1. Paper No. 10, page 5. However, none of these limitations are recited in claim 1 and therefore have not been addressed. The Examiner bears the burden of establishing a *prima facie* case of obviousness. M.P.E.P. §2142. The Examiner's burden includes identifying a prior art reference (or references when combined) that teach or suggest all of the claim limitations. M.P.E.P. §2142. Since the Examiner has not identified a prior art reference (or references when combined) that teach or suggest all of the claim limitations in claims 11, 12, 15-17, 24 and 25, the Examiner has not established a *prima facie* case of obviousness in rejecting claims 11, 12, 15-17, 24 and 25. M.P.E.P. §2142.

- d. The Examiner has not cited to any passage in Yates as teaching the limitations of claim 19.

The Examiner makes the blanket statement that claim 19 is rejected under the same rationale as the rejection to claims 1 and 2. Paper No. 10, page 6. However, these limitations are not recited in claims 1 and 2 and therefore have not been addressed. The Examiner bears the burden of establishing a *prima facie* case of obviousness. M.P.E.P. §2142. The Examiner's burden includes identifying a prior art reference (or references when combined) that teach or suggest all of the claim limitations. M.P.E.P. §2142. Since the Examiner has not identified a prior art reference (or references when combined) that teach or suggest all of the claim limitations in claim 19, the Examiner has not established a *prima facie* case of obviousness in rejecting claim 19. M.P.E.P. §2142.

- B. Claims 3-8, 13-14 and 20-23 are improperly rejected under 35 U.S.C. §103(a) as being unpatentable over Yates in view of Wang.

The Examiner has rejected claims 3-8, 13-14 and 20-23 under 35 U.S.C. §103(a) as being unpatentable over Yates in view of Wang. Paper No. 10, page 6.

Appellant respectfully traverses these rejections for at least the reasons stated below.

1. The Examiner has not provided any objective evidence for combining Yates with Wang.

As stated above, a *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions. M.P.E.P. §2142. The showings must be clear and particular and supported by objective evidence. *In re Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433-34 (Fed. Cir. 2002); *In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000); *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id.*

The Examiner's motivation for modifying Yates to have a memory manager comprise an annotation API that is configured to annotate within a process structure table the susceptibility of the program to buffer overflow attacks, as recited in claim 3 and similarly in claims 4, 5 is "for managing computer system memory (column 1, line 11 of Wang)." Paper No. 10, page 7. Similarly, the Examiner's motivation for modifying Yates to have a memory manager code that includes the process structure table code as an API, as recited in claim 13 and similarly in claim 14 is "for managing computer system memory (column 1, line 11 of Wang)." Paper No. 10, page 7. The Examiner's motivation is insufficient to support a *prima facie* case of obviousness for at least the reasons stated below.

The Examiner's motivation is not a motivation as to why one of ordinary skill in the art would modify Yates to include the above-cited claim limitation. The Examiner has not provided any evidence as to why Yates would be modified to have a memory manager comprise an annotation API that is configured to annotate within a process structure table the susceptibility of the program to buffer overflow attacks.

The passage in Wang cited by the Examiner teaches managing computer system memory. The Examiner has not explained how the statement in Wang that says "managing computer system memory" implies that a person of ordinary skill in the art would modify Yates to have a memory manager comprise an annotation API that is configured to annotate within a process structure table the susceptibility of the program to buffer overflow attacks. The cited passage in Wang is not related to annotating within a process structure table the susceptibility of the program to buffer overflow attacks. Neither is the cited passage in Wang related to an API configured to annotate within a process structure table the susceptibility of the program to buffer overflow attacks. The Examiner must provide some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Yates to have a memory manager comprise an annotation API that is configured to annotate within a process structure table the susceptibility of the program to buffer overflow attacks as well as to modify Yates to have a memory manager code that includes the process structure table code as an API. M.P.E.P. §2142. The Examiner is merely relying upon his own subjective opinion which is insufficient to support a *prima facie* case of obviousness in rejecting claims 3-5 and 13-14. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

2. Claims 20-23 do not recite an API.

The Examiner has rejected claims 20-23 under 35 U.S.C. §103(a) as being unpatentable over Yates in view of Wang because Yates does not teach an annotation API. Paper No. 10, page 6. However, claims 20-23 do not recite an annotation API. Appellant respectfully asserts that the Examiner has not specifically pointed out the limitation in claims 20-23 not taught by Yates thereby necessitating Wang. Further, the Examiner has not provided any motivation for modifying Yates to incorporate the limitation in claims 20-23 not taught by Yates. In order to establish a *prima facie* case of obviousness, the Examiner must provide a motivation or suggestion, either in the

references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference to combine reference teachings. M.P.E.P. §2142. Since the Examiner has not provided any motivation for modifying Yates to incorporate the limitation in claims 20-23 not taught by Yates, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 20-23. M.P.E.P. §2142.

3. The Examiner has not presented a reasonable expectation of success when combining Yates with Wang.

The Examiner must present a reasonable expectation of success in combining Yates with Wang in order to establish a *prima facie* case of obviousness in rejecting claims 3-8, 13-14 and 20-23. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986); M.P.E.P. §2143.02.

Yates teaches executing instructions for a computer of a first computer architecture on a computer of a second, different computer architecture. Column 1, lines 13-15.

Wang, on the other hand, teaches that one solution to utilizing larger amounts of RAM is referred to as the PSE-36 method. Column 1, lines 48-49. Wang further teaches that with this method, however, applications need to be rewritten and/or the memory partitioned into ramdisks (sections of memory that appear to be disk drives but are actually in RAM) to obtain a performance benefit, which is not always apparent. Column 1, lines 49-53. Wang further teaches that moreover, PSE-36 operates by copying frames of information into thirty-two-bit application addressable space so that the application can access the information, and any copying operation costs processor, cache, bus and memory cycles. Column 1, lines 54-57. Wang further teaches enabling applications to access an increased amount of physical memory via an extension to virtual memory addressing. Column 1, lines 60-63.

The Examiner has not presented any evidence that there would be a reasonable expectation of success in combining Yates, which teaches executing instructions for a computer of a first computer architecture on a computer of a second, different computer architecture, with Wang, which teaches accessing an increased amount of physical memory via an extension to virtual memory addressing. The Examiner has not provided any evidence as to how a method of executing instructions for a computer of a first computer architecture on a computer of a second, different computer architecture would be combined with a method of accessing an increased amount of physical memory via an extension to virtual memory addressing. Consequently, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 3-8, 13-14 and 20-23. M.P.E.P. §2143.02.

4. Claims 3-5 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Yates in view of Wang.

Appellant respectfully asserts that Yang and Wang, taken singly or in combination, do not teach or suggest "a process structure in data communication the memory manager" as recited in claim 3 and similarly in claims 4 and 5. The Examiner has not cited to any passage in either Yang or Wang as teaching the above-cited claim limitation. The Examiner bears the burden of establishing a *prima facie* case of obviousness. M.P.E.P. §2142. The Examiner's burden includes identifying a prior art reference (or references when combined) that teach or suggest all of the claim limitations. M.P.E.P. §2142. Since the Examiner has not identified any passage in either Yang or Wang that teaches or suggests the above-cited claim limitation, the Examiner has not established a *prima facie* case of obviousness in rejecting claims 3-5. M.P.E.P. §2142.

Appellant further asserts that Yang and Wang, taken singly or in combination, do not teach or suggest "wherein the memory manager comprises an annotation API, wherein the annotation API is configured to annotate within the process structure

table the susceptibility of the program to buffer overflow attacks, wherein the memory manager is configured to make the determination of susceptibility to buffer overflow attacks with reference to the process structure table" as recited in claim 3 and similarly in claim 4. The Examiner cites column 1, line 63 – column 2, line 8 and column 6, lines 8-22 of Wang as teaching the aspect of an API. Paper No. 10, page 6. The Examiner has not addressed the other limitations in claim 3, as recited above. The Examiner bears the burden of establishing a *prima facie* case of obviousness. M.P.E.P. §2142. The Examiner's burden includes identifying a prior art reference (or references when combined) that teach or suggest all of the claim limitations. M.P.E.P. §2142. Since the Examiner has not identified a prior art reference (or references when combined) that teach or suggest all of the claim limitations in claims 3 and 4, the Examiner has not established a *prima facie* case of obviousness in rejecting claims 3 and 4. M.P.E.P. §2142.

Appellant further asserts that Yang and Wang, taken singly or in combination, do not teach or suggest "an annotation program in data communication with the process structure table, wherein the annotation program is configured to annotate within the process structure table the susceptibility of the program to buffer overflow attacks, and wherein the memory manager is configured to make the determination of susceptibility to buffer overflow attacks with reference to the process structure table" as recited in claim 5. The Examiner cites column 1, line 63 – column 2, line 8 and column 6, lines 8-22 of Wang as teaching the aspect of an API. Paper No. 10, page 6. The Examiner has not addressed the other limitations in claim 5, as recited above. The Examiner bears the burden of establishing a *prima facie* case of obviousness. M.P.E.P. §2142. The Examiner's burden includes identifying a prior art reference (or references when combined) that teach or suggest all of the claim limitations. M.P.E.P. §2142. Since the Examiner has not identified a prior art reference (or references when combined) that teach or suggest all of the claim limitations in claim 5, the

Examiner has not established a *prima facie* case of obviousness in rejecting claim 5. M.P.E.P. §2142.

5. Claims 6-8 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Yates in view of Wang.

Appellant further asserts that Yang and Wang, taken singly or in combination, do not teach or suggest "wherein the program is configured to call the annotation API if the program is susceptible to buffer overflow attacks, the memory manager is configured to determine susceptibility upon a request to allocate an additional page of RAM for the program" as recited in claim 6 and similarly in claims 7 and 8. The Examiner has not addressed the limitation as recited above. The Examiner simply states that claims 6-8 have limitations similar to those of claims 1 and 3 and thus are rejected under the same rationale as the rejection to claims 1 and 3. Paper No. 10, page 7. However, claims 1 and 3 do not contain the limitation as recited above. The Examiner bears the burden of establishing a *prima facie* case of obviousness. M.P.E.P. §2142. The Examiner's burden includes identifying a prior art reference (or references when combined) that teach or suggest all of the claim limitations. M.P.E.P. §2142. Since the Examiner has not identified a prior art reference (or references when combined) that teach or suggest all of the claim limitations in claims 6-8, the Examiner has not established a *prima facie* case of obviousness in rejecting claims 6-8. M.P.E.P. §2142.

6. Claims 13 and 14 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Yates in view of Wang.

Appellant further asserts that Yang and Wang, taken singly or in combination, do not teach or suggest "wherein the memory manager code comprises the process structure table code as an API" as recited in claim 13 and similarly in claim 14. The Examiner has not addressed the limitation as recited above. The Examiner simply states that claims 13 and 14 have limitations similar to those of claim 3 and thus are

rejected under the same rationale as the rejection to claim 3. Paper No. 10, page 7. However, claim 3 does not contain the limitation as recited above. The Examiner bears the burden of establishing a *prima facie* case of obviousness. M.P.E.P. §2142. The Examiner's burden includes identifying a prior art reference (or references when combined) that teach or suggest all of the claim limitations. M.P.E.P. §2142. Since the Examiner has not identified a prior art reference (or references when combined) that teach or suggest all of the claim limitations in claims 13-14, the Examiner has not established a *prima facie* case of obviousness in rejecting claims 13-14. M.P.E.P. §2142.

7. Claims 20 and 21 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Yates in view of Wang.

Appellant further asserts that Yang and Wang, taken singly or in combination, do not teach or suggest "establishing a process structure table; maintaining the process structure table by annotating within the process structure table the susceptibility of the application program to buffer overflow attacks, wherein the step of determining susceptibility to buffer overflow attacks is made with reference to the process structure table" as recited in claim 20 and similarly in claim 21. The Examiner has not addressed the limitation as recited above. The Examiner simply states that claims 20 and 21 have limitations similar to those of claim 3 and thus are rejected under the same rationale as the rejection to claim 3. Paper No. 10, page 7. However, claim 3 does not contain the limitation as recited above. The Examiner bears the burden of establishing a *prima facie* case of obviousness. M.P.E.P. §2142. The Examiner's burden includes identifying a prior art reference (or references when combined) that teach or suggest all of the claim limitations. M.P.E.P. §2142. Since the Examiner has not identified a prior art reference (or references when combined) that teach or suggest all of the claim limitations in claims 20-21, the Examiner has not established a *prima facie* case of obviousness in rejecting claims 20-21. M.P.E.P. §2142.

8. Claims 22 and 23 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Yates in view of Wang.

Appellant further asserts that Yang and Wang, taken singly or in combination, do not teach or suggest "wherein the step of maintaining the process structure table is done once at the beginning of execution of the application program, and the step of determining susceptibility is performed upon each receipt of a request to allocate an additional page of RAM for the application program code" as recited in claim 22 and similarly in claim 23. The Examiner has not addressed the limitation as recited above. The Examiner simply states that claims 22 and 23 have limitations similar to those of claims 3 and 9 and thus are rejected under the same rationale as the rejection to claims 3 and 9. Paper No. 10, page 7. However, claims 3 and 9 do not contain the limitations as recited above. The Examiner bears the burden of establishing a *prima facie* case of obviousness. M.P.E.P. §2142. The Examiner's burden includes identifying a prior art reference (or references when combined) that teach or suggest all of the claim limitations. M.P.E.P. §2142. Since the Examiner has not identified a prior art reference (or references when combined) that teach or suggest all of the claim limitations in claims 22-23, the Examiner has not established a *prima facie* case of obviousness in rejecting claims 22-23. M.P.E.P. §2142.

IV. CONCLUSION

For at least the reasons stated above and in the Appeal Brief filed by Appellant on August 20, 2004, the rejections of claims 1-25 are in error. Appellant respectfully requests reversal of the rejections and allowance of claims 1-25.

Respectfully submitted,

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